COMPUTER

CENTRE

BULLETIN

EDITORIAL

I believe the Bulletin should attempt to publish an article of general
computing interest each month. Without this, it tends to become purely
an error reporting publication of little lasting interest. There is a
limit to the number of patient people that the Editor has badgered into
contributing articles. Unfortunately, because the staff of the Computer
Centre and the Computer Science Department are so readily available it
has mainly fallen on their shoulders to contribute. Readers may have thought
that the Bulletin does not welcome articles from outside the Centre, but
this is not true. Many users are working on projects using computers that
would be of interest to others; cannot the readers of the Bulletin share in
this? If the Bulletin fails to stimulate its readers, then I believe it
fails to be an effective journal.

The Bulletin may be produced by the Computer Centre, but it is produced for
the benefit and interest of its readers, and so requires your cooperation.
I appeal to all readers to help in making it more worthwhile and stimulating.

PDP-10 TIMESHARING SERVICE

(a)   INCREASED FILE STORAGE LIMITS

Over the past few weeks the timesharing operation has become fairly stable.
A standard pattern of use of this service has now emerged, and an assessment
of the actual use of file storage been made.

On this basis, the logged out file storage limit for remote terminal users has
been increased from 12.5 Kwords to 35 Kwords. Logged in limits will remain
unchanged. The new limit applied from Monday 15 February 1971. However, should
there be any significant change in the present pattern of use, which results in
an increased demand for file storage, the capacity of the system may be
exceeded. If this occurs, the Centre will have to reduce these limits.

Users are asked at all times, to keep their amount of file storage to a
minimum by deleting all unwanted files. The cooperation of users in this
regard will

(i)   minimize file storage charges
(ii)   improve the system efficiency
(iii)   result in the possibility of further increases of file limits in the
        future

(b) <u>EXTENSION OF TIMESHARING HOURS</u>

The present schedule for timesharing operation is

1000-1200   and   1400-1700

In addition, if the period 1200-1400 is not required for development work, it is made available for general timesharing.

COMPUTER SYSTEM STATUS SERVICE

The Computer System Status Service is now available. This is a recorded telephone answering service that provides up-to-date information on the status of the system; the times of operations, reasons for any system malfunctions, extended services and other relevant information.

The extension number for the System Status Service is 8101. In due course, the service will also be provided with an external number.

MANUALS

(a) <u>BASIC MANUALS</u>

The BASIC manual is now obtainable at the University Bookshop. The price per manual is $2.70.

(b) <u>REVISION FOR FORTRAN MANUAL</u>

The first revision list for the PDP-10 FORTRAN IV manual MNT-5 is now available. It is obtainable from the University Bookshop or the Computer Centre free of charge.

All FORTRAN IV manuals purchased from the Bookshop should include the latest revision pages.

PDP-10 FORTRAN IV

(a) RESTORATION OF VARIABLES IN A CALLING SEQUENCE

```
CALL SUB (real, real, real, complex,complex, complex,
          real, integer, complex, complex, complex,
          complex, complex, complex, complex)
```

This statement causes the integer variable in the calling sequence to be destroyed by one of the complex variables being restored at the end of the subroutine.

The solution is to put all the complex variables first in the calling sequence, followed by the real variables and then the integer variable.

(b) FALSE DIAGNOSIS CAUSED BY IMPLICIT STATEMENT

The IMPLICIT statement can sometimes cause a false compiler diagnostic message which prevents loading and execution but creates an executable relocatable file.

example:

```
IMPLICIT DOUBLE PRECISION (A-H,O-Z)
COMPLEX Y,Z
      .
      .
      .
Y = EXP(.5)Z
```

The above example causes an M-5 diagnostic since the compiler thinks that EXP is double precision and double precision, complex mixed operations are not allowed. The problem can be avoided by inserting the type statement REAL EXP after the IMPLICIT statement.

USE OF PAPER TAPE

A number of the users with ASR terminals are currently using their paper-tape readers and punches for input and output of information simply by turning these devices on while the Teletype is doing input or output.

Users are advised that this is not the correct mode of operation of the paper tape equipment and that use of the equipment in this manner may result in the loss of information. The Centre plans to provide support for the use of paper tape in the near future.

APPLICATIONS ANALYST

The Computer Centre has appointed, for the first time, a temporary Senior Applications Analyst. The position will be filled for the remainder of 1971 by Mr Ian Oliver. Mr Oliver was a lecturer in the Department of Computer Science before he resigned in 1969 to become a private consultant. He will remain a Director of Ian Oliver & Associates Pty Ltd.

The position has been made possible by the financial backing of the University Library and one or two departments. Mr Oliver will carry out a large systems analysis project under the direction of the University Librarian, Mr F.D.O. Fielding. The project is aimed at providing an improved circulation system for the new Central Research and Undergraduate Library Complex that is scheduled for opening in 1973.

LIBRARY ACCESSIONS

The following books were acquired by the University of Queensland Libraries in October and November of 1970.

BEER, Stafford	*Cybernetics and management* 1967 (001.53 BEE Main)
FOGEL, Lawrence J.	*Human information processing* 1967 (001.53 FOG Elect.)
MORRILL, Chester	*Computers and data processing* 1969 (Ref. 016.6518 MOR Main Ref.)
INTERNATIONAL BUSINESS MACHINES CORPORATION Data Processing Division	*Library automation - computer produced book catalog* 1969 (Qto 025.3 INT Main)
ATKINSON, Richard C. comp.	*Computer-assisted instruction* 1969 (371.3944 ATK Main)
	Computers in education 1968? (Qto 370.18 COM Educ.)
FOLEY, J.W.	*Establishing an educational data processing center* 1969 (Qto 370.18 FOL Educ.)

	Coding and decoding operations research 1961 (Qto 519.7 COD Elect.)
DANTZIG, George Bernard, ed.	*Mathematics of the decision sciences* 1968– (519.92 DAN Maths)
OPPENHEIM, Alan V.	*Block-floating-point realization of digital filters* 1969 (Qto 510.78 OPP Engin.)
THROSBY, C.D.	*Elementary linear programming* 1970 (519.92 THR Engin.)
BAILLIE, Ann, ed.	*Automation, mechanization and data handling in microbiology* 1970 (576.028 BAI Clin.)
BAGLEY, Philip R.	*A recommendation for formats for computer program catalogs* 1968 (Qto 621.38195 BAG Engin.)
DOTSON, Jay C.	*Short course and symposium on computers and computer applications in mining and exploration* 1966 (Qto 622.018 DOT Engin.)
DYER, Peter	*The computation and theory of optimal control* 1970 (629.8312 DYE Maths)
GAGNE, R.E.	*Smoothing of digital-to-analog converted data in digital data systems* 1964 (Qto 621.38195 GAG Engin.)
BURSTALL, R.M.	*POP-2 papers* 1968 (651.8 BUR Engin)
EMERY, Glyn	*Electronic data processing* 1968 (651.84 EME Engin.)
	An INTEGRATED hardware-software system for computer graphics in time-sharing 1968 (Qto 651.8 INT Engin.)

INTERNATION CONGRESS FOR PROJECT PLANNING BY NETWORK ANALYSIS, 2d, Amsterdam, 1969 *Project Planning by network analysis* 1969 (658.502 INT Engin.)

KANTER, Jerome	*Management guide to computer system selection and use* 1970 (651.8 KAN Main)
NATIONAL COMPUTING CENTRE	*Computer file creation for manufacturing control* 1968 (658.56 NAT Engin)
SHARPE, William F.	*The economics of computers* 1969 (651.8 SHA Main)

BELLMAN, Richard Ernest   *Programmed statistics* 1970 (519 BEL Main)

STRAUSS, H.J.   *External functions for SNOBOL4* 1968 (Qto 519.92 STR Engin.)

HUSSON, Samir S.   *Microprogramming* 1970 (621.381958 HUS Engin.)

                             Handbook of data processing 1970 (651.8 HAN Main)

STANDISH, T.A.   *A data definition facility for programming languages* 1967 (Qto 651.8 STA Engin.)

STIMLER, Saul   *Real-time data processing systems* 1969 (651.8 STI Engin.)

                             Data base no 2; 1969 and onwards (651.8 DAT Engin.)